

Appl. No. 10/725,776
Docket No. 2102475-991290
Response to Office Action of April 5, 2005

REMARKS/ARGUMENTS

Claims 1-11 are pending. Claims 1-11 have been rejected. Reconsideration is respectfully requested.

The acknowledgment of the claim for Foreign Priority under 35 U.S.C. §119 is noted.

The drawings have been objected to as failing to comply with 37 C.F.R. §1.84(p)(5) because the drawings include reference characters that are not mentioned in the description. In view of the Examiner's comments, the specification has been amended to include the reference characters: W/Rx; t(ns); TIMEUP; preset value; and WL[0]. No new matter has been added. In view of the amendment to the specification, it is respectfully submitted that no amendment to the drawings is necessary. Withdrawal of the objection is respectfully requested.

Claims 1-11 have been rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. The Examiner states that it is not understood what certain elements are because they are not described in the specification. These elements are the same elements that were objected to for being in the drawings, but not described in the specification. As noted above, the specification has been amended in response to the objection to the drawings. Therefore, these elements are now defined in the specification, and thus claims 1-11 comply with the enablement requirement.

Further, the Examiner states that it is not understood what the input of the driver 13e in Figure 3b is and how it is connected with other elements in the circuits of the invention. The specification has been amended to clarify the driver 13e in terms of receiving an output signal of the decoding circuit and that the driver 13f drives the word lines in response to the output signal of the decoding circuit. No new matter has been added. Therefore, it is respectfully submitted that the specification provides enablement for claims 1-11. Withdrawal of the rejection is respectfully requested.

Claims 1-11 have been rejected under 35 U.S.C. §103(a) as being unpatentable over *Chun* (U.S. Patent No. 6,643,218). This rejection is respectfully traversed.

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Independent Claim 1 recites in part "a command buffer circuit, which receives at least an active signal to activate one of the rows, and a clock signal, the command buffer circuit generating an internal pre-charge signal to pre-charge the bit lines based on the active signal." In this memory device, an external precharge command is not necessarily supplied, and the internal precharge signal is advantageously generated, for example even at a high frequency of a clock signal. Also, it is not necessary to provide a pin or pad for receiving an external pre-charge command, and thus the chips may be miniaturized.

Independent Claim 6 recites in part "a control circuit which generates an internal pre-charge signal to precharge the bit lines in response to the active signal outputted from the command buffer circuit, the control circuit controls the time in which one of the word lines is kept selected." In this device, a time of selecting the word lines is controlled even when a time interval between active signals is long so that a transistor or other elements used for selecting word lines can operate without being adversely affected.

As understood, *Chun* at best discloses a command buffer 20 and a command decoder 26, as shown in Figure 1. The command decoder 26 generates a pre-charge control signal PREI, a write signal W, an active signal ACT, a read signal R, and a mode selection signal MS in response to signals /CSI, /RASI, /CASI, and /WEI supplied from the command buffer 20. Therefore, the precharge control signal PREI of *Chun* is not generated by the active signal ACT as recited in claims 1 and 6.

Chun also discloses an active command ACT and a precharge command PRE in column 2, lines 29-35 and Figure 3. The pre-charge control signal PREI of *Chun* is generated based on the precharge command PRE. Thus, the structure disclosed in *Chun* differs significantly from the active signal and command buffer circuits recited in claims 1 and 6.

Chun does not suggest the advantages of the claimed invention wherein the internal precharge signal is generated even at a high frequency of a clock signal, and a time of selecting the word lines is controlled even when a time interval between active signals is long.

Lacking the disclosure or even suggestion of at least this claim feature, *Chun* can not render independent claims 1 and 6 unpatenable. Because claims 2-5 and 7-11 depend on

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independent claims 1 or 6, *Chun* cannot render claims 2-5 and 7-11 unpatentable. Therefore it is respectfully submitted that claims 1-11 are patentable over the references of record.

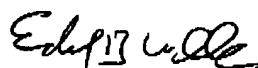
For the foregoing reasons, it is respectfully submitted that the claims are in an allowable form, and action to that end is respectfully requested.

The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number 07-1896, referencing docket number 2102475-991290.

Respectfully submitted,

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